

WHAT IS CLAIMED IS:

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1. A testing apparatus having a function of sending a packet having a header field including an address and a data field including data, said testing apparatus comprising:

10 a test packet transmitting part generating test data and sending the test data included in the data field,

the test packet transmitting part comprising a test packet generating part and a  
15 transmit control part,

the test packet generating part comprising:

an address outputting unit that outputs an updated address to be described in the header  
20 field in accordance with a setting value; and

a data outputting unit that outputs fixed or updated test data to be included in the data field in accordance with another setting value,

the transmit control part comprising a  
25 controller that places the address in the header field in accordance with a format of the packet and placing the test data in the data field.

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2. The testing apparatus as claimed in claim 1, wherein:

the test packet generating part comprises  
35 a protocol header generating part, an identifier generating part, a serial number generating part, and a test data generating part;

the protocol header generating part comprises a unit that updates an address within a range defined by initial value data and end value data each time one packet is sent;

5 the test data generating part comprises an output unit that outputs pseudo-random data, increment data, decrement data and fixed data, each having a respective data length based on an associated setting value.

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3. The testing apparatus as claimed in claim 1, further comprising a control data memory that stores a predetermined control packet that is required to be periodically sent,

the transmit control part sending the predetermined control packet read from the control data memory after sending the packet including the test data.

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4. A testing apparatus receiving a packet having a header field including an address and a data field including data to be transmitted and performing a predetermined test, said testing apparatus comprising:

a test packet receiving part receiving a packet from a packet switch or a network and checking the packet,

the test packet receiving part including a test packet checking part that checks the address in the header field and test data in the data field and a receive control part that causes the test data

checking part to perform check operation at a timing based on a format of the packet.

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5. A testing apparatus transmitting a packet having a header field including an address and a data field including data to be transmitted and sending the packet in accordance with a predetermined protocol, said testing apparatus comprising:

a test packet generating part and a transmit control part,  
15 the test packet generating part comprising:  
a first output unit that outputs data including address data to be placed in the header field;  
20 a second output unit that outputs data including test data to be placed in the data field; and  
a selector selecting one of the first and second output units,  
25 the transmit control part controlling the selector so that the packet that conforms to the predetermined protocol can be output.

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6. The testing apparatus as claimed in claim 4, wherein:  
the test packet checking part includes a  
35 protocol header checking part, an identifier checking part, a serial number checking part, and a test data checking part; and

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